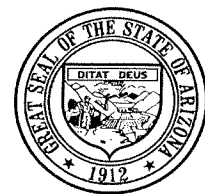


**ARIZONA DEPARTMENT OF WATER RESOURCES**  
**Hydrology Division**

500 North Third Street, Phoenix, Arizona 85004  
Telephone 602 417-2448  
Fax 602 417-2425

November 20, 2003



JANET NAPOLITANO  
Governor

HERB GUENTHER  
Director

Mr. Leighton T. Cruse  
Clear Creek Associates, PLC  
2150 E. Highland  
Suite 201  
Phoenix, Arizona 85016

**Re: South Maricopa Facilities Area**  
**Application for Physical Availability Demonstration #20-401023**

Dear Mr. Cruse:

The Department is in the process of reviewing the application for physical availability demonstration submitted by Philip Miller of Protitlement for the South Maricopa Facilities Area.

Based on our review of the *Hydrology Study Report* and groundwater flow model that you provided, it appears that the overall ability of the model to accurately simulate observed water levels decreases with time. Thus, the model may provide a more conservative estimate of the future depth to water. This is partly the result of the relatively short transient calibration period of the original model. This is a condition that will be addressed by the Department in a future model update and recalibration.

In this case, other more simple analytical methods may provide better results for predicting long-term impacts to the groundwater table. However, due to insufficient data in the project area, we suggest the following:

- Conduct multiple aquifer tests associated with wells completed in the MAU-LAU aquifers. This will provide a more accurate estimate of the transmissivity beneath the property.
- Use THWELLS, or a similar analytical model, in conjunction with the aquifer test results to predict groundwater declines.
- Upon completion of testing and re-analysis, the results should be compared with the Pinal model results for evaluation of the use of the Pinal model for assured water supply purposes in this area.

Page 2

Mr. Leighton T. Cruse

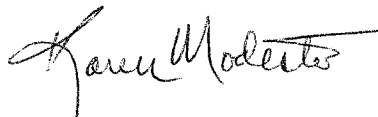
November 20, 2003

South Maricopa Facilities Area

Application for Physical Availability Demonstration #20-401023

For questions regarding the review of the model and our recommendations, please contact Dale Mason or Andy Kurtz at 602-417-2448. If you have any other questions relating to the application or review process please feel free to contact me 602-417-2400, ext. 7315.

Sincerely,

A handwritten signature in black ink, appearing to read "Karen Modesto", with a stylized, flowing script.

Karen Modesto

Water Resources Section Supervisor

KM/rd  
202429

cc: Philip Miller  
Doug Dunham